

PATRICIA A. PESHKA

PURCHASING AGENT



SCOTT AVEDISIAN

MAYOR

CITY OF WARWICK
PURCHASING DIVISION
3275 POST ROAD
WARWICK, RHODE ISLAND 02886
TEL (401) 738-2000 EXT. 6240
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The following notice is to appear on the City of Warwick's website Thursday, July 14, 2016.
The website address is <http://www.warwickri.gov/bids>.

**CITY OF WARWICK
BIDS REQUESTED FOR**

**Bid2017-069 Protective Structural Firefighting Coats, Pants &
Fire-Retardant Carbon-Based Hoods**

Specifications are available in the Purchasing Division, Warwick City Hall, Monday through Friday, 8:30 AM until 4:30 PM, Thursday, July 14, 2016.

Sealed bids will be received by the Purchasing Division, Warwick City Hall, 3275 Post Road, Warwick, Rhode Island 02886 up until 11 AM, Tuesday, July 26, 2016. The bids will be opened publicly commencing 11 AM, on the same day in the Lower Level Conference Room, Warwick City Hall.

Awards shall be made on the basis of the lowest evaluated or responsive bid price.
Please note that no bids can be accepted via email or fax.

Individuals requesting interpreter services for the hearing impaired must notify the Purchasing Division at 401-738-2000, extension 6241 at least 48 hours in advance of the bid opening date.

Original Signature on File

Patricia A. Peshka
Purchasing Agent

PLEASE SUBMIT THIS PAGE WITH YOUR BID

Acknowledgement of Addendum (if applicable)

Addendum Number

Signature of Bidder

COMPANY NAME: _____

COMPANY ADDRESS: _____

BIDDER'S SIGNATURE: _____

BIDDER'S NAME (PRINT): _____

TITLE: _____ TEL. NO.: _____

EMAIL ADDRESS: _____*

*Please include your email address. Future bids will be emailed, unless otherwise noted.

II. AWARD AND CONTRACT:

The CITY OF WARWICK, acting as duly authorized through its Purchasing Agent/Finance Director/Mayor (delete if inapplicable), accepts the above bid and hereby enters into a contract with the above party to pay the bid price upon completion of the project or receipt of the goods unless another payment schedule is contained in the specifications. All terms of the specifications, both substantive and procedural, are made terms of this contract.

DATE: _____

BID2017-069

PURCHASING AGENT

CERTIFICATION & WARRANT FORM*

**This form must be completed and submitted with sealed bid.
Failure to do so will result in automatic rejection.**

Any and all bids shall contain a certification and warrant that they comply with all relevant and pertinent statutes, laws, ordinances and regulations, in particular, but not limited to Chapter 16- Conflicts of Interest, of the Code of Ordinances of the City of Warwick. Any proven violation of this warranty and representation by a bidder at the time of the bid or during the course of the contract, included, but not limited to negligent acts, either directly or indirectly through agents and/or sub-contractors, shall render the bidder's contract terminated and the bidder shall be required to reimburse the City for any and all costs incurred by the City, including reasonable attorney fees, to prosecute and/or enforce this provision.

Signature

Date

Company Name

Address

Address

***This form cannot be altered**

**CITY OF WARWICK
NOTICE TO BIDDERS**

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If you received this document from our homepage or from a source other than the City of Warwick Purchasing Division, please check with our office prior to submitting your bid to ensure that you have a complete package. The Purchasing Division cannot be responsible to provide addenda if we do not have you on record as a plan holder.

The opening of bids shall be in the order established by the posted agenda and the agenda shall continue uninterrupted until completion.

Once an item has been reached and any bids on that item has been opened, no other bids on that item will be accepted and any such bid shall be deemed late.

The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap for any position for which the employee or applicant is qualified and that in the event of noncompliance the City may declare the contractor in breach and take any necessary legal recourse including termination or cancellation of the contract.

A bidder filing a bid thereby certifies that no officer, agent, or employee of the City has a pecuniary interest in the bid or has participated in contract negotiations on the part of the City, that the bid is made in good faith without fraud, collusion, or connection of any kind with any other bidder for the same call for bids, and that the bidder is competing solely in his own behalf without connection with, or obligation to, any undisclosed person or firm.

All bids should be submitted with one (1) original and one (1) copy in a sealed envelope. The exterior of the envelope shall be plainly marked to include: *YOUR COMPANY NAME* and "Bid2017-069 Protective Structural Firefighting Coats, Pants & Fire-Retardant Carbon-Based Hoods." Bids received prior to the time of the opening will be securely kept, unopened. No responsibility will be attached to an officer or person for the premature opening of a bid not properly addressed and identified. No bids shall be accepted via facsimile or email.

Should you have any questions, please contact Assistant Chief Cooley, Warwick Fire Department, 111 Veterans Memorial Dr., Warwick, RI at 401-468-4018.

All bids should be written in ink or typed. If there is a correction with whiteout, the bidder must initial the change.

Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawal of the bid after it is opened.

Any deviation from the specifications must be noted in writing and attached as part of the bid. The bidder shall indicate the item or part with the deviation and indicate how the bid will deviate from specifications.

The contractor must carry sufficient liability insurance and agree to indemnify the city against all claims of any nature, which might arise as a result of his operations or conduct of work.

The IRS Form W-9 attached should be completed and submitted with the bid if the bidder falls under IRS requirements to file this form.

Prices to be held firm two (2) years from date of award. Term contracts may be extended for one (1) additional term upon mutual agreement unless otherwise stated.

Per Section 56-5(f), Post-Bid Award Requirement. When a bid is awarded to a corporation, limited liability company or other legal entity, prior to commencing work under the awarded bid, that corporation, company or legal entity shall provide to the Purchasing Agent a Certificate of Good Standing dated no more than thirty (30) days prior to the date upon which the bid award was made.

The successful bidder will provide said Certificate of Insurance and Certificate of Good Standing within ten (10) calendar days after notification of award or the City reserves the right to rescind said award.

The successful bidder will provide said Certificate of Good Standing within ten (10) calendar days after notification of award or the City reserves the right to rescind said award.

The Certificate of Insurance and Certificate of Good Standing may be emailed to bids@warwickri.com. Please refer to the bid number on your response.

The City is exempt from the payment of the Rhode Island Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph I, as amended.

The successful bidder must comply with all Rhode Island Laws, applicable to public works projects, including, but not limited to provisions of Chapter 13 of Title 37 of the Rhode Island General Laws, pertaining to prevailing wage rates, and all other applicable local, state and federal laws.

The Purchasing Agent reserves the right to reject any and all bids, to waive any minor deviations or informalities in the bids received, and to accept the bid deemed most favorable to the interest of the City.

The City reserves the right to terminate the contract or any part of the contract in the best interests of the City, upon 30-day notice to the contractor. The City shall incur no liability for materials or services not yet ordered if it terminates in the best interests of the City. If the City terminates in the interests of the City after an order for materials or services have been placed, the contractor shall be entitled to compensation upon submission of invoices and proper proof of claim, in that proportion which its services and products were satisfactorily rendered or provided, as well as expenses necessarily incurred in the performance of work up to time of termination.

No extra charges for delivery, handling or other services will be honored. All claims for damage in transit shall be the responsibility of the successful bidder. Deliveries must be made during normal working hours unless otherwise agreed upon.

All costs directly or indirectly related to the preparation of a response to this solicitation, or any presentation or communication to supplement and/or clarify any response to this

Solicitation, which may be required or requested by the City of Warwick shall be the sole responsibility of and shall be borne by the respondent.

If the respondent is awarded a contract in accordance with this solicitation and the respondents bid or response and if the respondent fails or refuses to satisfy fully all of the respondents obligations thereunder, the City of Warwick shall be entitled to recover from the respondent any losses, damages or costs incurred by the City as a result of such failure or refusal.

The City reserves the right to award in part or full and to increase or decrease quantities in the best interest of the City.

Any quantity reference in the bid specifications are estimates only, and do not represent a commitment on the part of the City of Warwick to any level of billing activity. It is understood and agreed that the agreement shall cover the actual quantities ordered during the contract period.

The City reserves the right to rescind award for non-compliance to bid specifications.

The successful bidder must adhere to all City, State and Federal Laws, where applicable.

WARWICK FIRE DEPARTMENT

GENERAL SPECIFICATIONS

1 (ONE) OR MORE SETS OF PROTECTIVE COAT AND PANTS FOR STRUCTURAL FIREFIGHTING

FIRE-RETARDANT FIREFIGHTING CARBON-BASED HOODS OR EQUAL

1.0 PURPOSE AND SCOPE

This specification defines the minimum requirements for structural firefighter personal protective equipment (PPE) providing limited protection as defined by the NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*, 2013 Edition. In the absence of comment on a particular point, industry standard practice shall be presumed to prevail. Every exception to specifications must be clearly spelled out at the time of the bid.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

2.0 UNITS OF MEASURE

Current NFPA standards applicable to this product specification express values for measurement requirements in SI (metric-based) units, followed by US (inch-pound) approximate equivalents in parentheses. For the convenience of the fire department, this product specification reverses the order and presents the more familiar US approximation first, followed by the SI requirement in parentheses.

3.0 CERTIFICATION

The manufacturer must certify that the garments proposed in its bid meet or exceed all requirements of NFPA 1971. The manufacturer must also list and label this product with Underwriters Laboratories Inc. (UL) or Safety Equipment Institute (SEI), as the third party certification organization prescribed in NFPA 1971. All certification testing and test preconditioning must have been performed by an ISO 17025-certified laboratory. UL, SEI or a UL Authorized Client Test Data Program will fulfill this requirement.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

The manufacturer shall be registered to ISO 9001, *Quality Management Systems-Requirements*, 2000.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

4.0 WARRANTY

The manufacturer must provide a lifetime warranty against defects in materials and workmanship with the bid package.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

5.0 PRODUCT COUNTRY OF ORIGIN

For liability reasons, garments must be manufactured in the United States of America or Canada by companies with their assets and incorporation within the United States of America or Canada

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

6.0 LABELING REQUIREMENTS

Labels shall be permanently and integrally printed onto breathable materials that meet all the requirements for labels of NFPA 1971. Garment labels shall meet all requirements of the NFPA 1971 Flame Resistance Test One (for vertical flame resistance of cloth). The garment shall be clearly labeled to fully identify the material content of all three layers: outer shell, moisture barrier and thermal liner. In addition, each separable layer of garment shall be labeled with the FEMSA-style DANGER label in an obvious location.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

7.0 CARE INSTRUCTIONS

The manufacturer shall provide a user information guide for the garments, which complies with user information requirements of NFPA 1971. Topics shall include, but not necessarily be limited to: pre-use information, preparation for use, inspection frequency and details, don/doff, use consistent with NFPA 1500, maintenance and cleaning, are retirement and disposal criteria and considerations.

This document shall be packaged with each garment along with a specification summary sheet describing garment custom options, sizing and production details. This written information shall be in complete compliance with NFPA 1971 requirements, and shall reference same.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

8.0 TRACEABILITY PROGRAM

The manufacturer shall have in place a computer maintained traceability program that provides for the assignment of a production control number to each garment. The traceability program must be capable of tracing the garment through production, from the bolts of cloth used in all three layers of the garment composite construction, to the assignment of the garment to the individual firefighter. This production control number shall be visibly located on the garment label and on other protected areas of the garment.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

9.0 PATENT CONSIDERATIONS

The Bidder, without exception, shall indemnify and save harmless the Purchaser and its employees from liability of any nature and kind, including cost and expenses for or on account of any copyrighted, patented or un-patented invention, process, or article manufactured or used in the performance of the contract, including its use by the Purchaser. If the Bidder uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

10.0 SIZING

To ensure a perfect fit, sizing shall be based on actual measurements taken of the firefighter by a trained measurement specialist, or sizing try-ons, or both. Sizing measurements shall be taken according to a schedule and location(s) mutually agreed between the manufacturer and the department.

Garments shall be available in custom sizing as follows: coat chest in 2-inch (5.1 cm) increments, coat sleeve in 0.5-inch (1.3 cm) increments, coat back length in 1-inch (2.5 cm) increments, pant waist in 2-inch (5.1 cm) increments and pant inseam in 1-inch (2.5 cm) increments. A full range of women's sizing, on women's patterns, must also be available. Each sleeve and inseam length shall provide 100% graduation from shoulder to wrist, and from hip to ankle, to provide proper fit for individual arm and leg lengths. Pattern tailoring to custom-fit neck, bicep, hip/seat and thigh circumferences must also be provided, when needed, at no additional charge. Neither Small-Medium-Large-Extra Large sizing nor women's garments cut to men's patterning are considered acceptable, since proper fit facilitates mobility and minimizes stress.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

11. FLAMMIBILITY OF CONSTITUENT MATERIALS

Labels, bindings, hang-up loops and production labels shall be tested for flame resistance and shall comply with the requirements of NFPA 1971 Flame Resistance Test One (for vertical flammability of cloth).

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

12.0 SELF-BINDING

Liner and moisture barrier shall be stitched together and turned, then topstitched, to create a self binding. The extra bulk of separate binding material is specifically prohibited.

Does Your Bid Comply With All Aspects Of This Section? Yes___ No___

13.0 THREAD

All threads used in structural seams shall be Nomex® of minimum Tex size T-70. Light colored garments and trim areas shall feature yellow thread. Black and dark garments shall feature black thread. Tan or bronze colored garments shall feature tan thread.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

14.0 STITCH METHODS

14.1 MAJOR A & B SEAMS

Except for the collar Major A seam, which is single-needle lock stitched three times, all Major A & B seams (as defined by NFPA 1971) shall be double stitched, double fed throughout all three layers (outer shell, moisture barrier and thermal liner), and shall be made with Nomex® thread, Tex size T-90.

Also, all moisture barrier seams shall be tape-sealed to meet all requirements of the NFPA 1981 Liquid Penetration Resistance Test.

Does Your Bid Comply With All Aspects of This Section?

For Outer Shell:	Yes___ No___
For Thermal Lining:	Yes___ No___
For Moisture Barrier:	Yes___ No___

14.2 MINOR SEAMS

Most Minor seams, such as storm shields and mated hems, shall also be stitched with the specified Nomex® thread.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

14.3 POCKETS

Flat garment pockets shall be stitched with the specified Nomex® thread.

3-Dimensional pocketing shall feature these same construction details, but the reinforced single stitch Seam Type LSd-1 may be substituted for LSd-2. Details seam type requirements are shown below.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

14.4 TRIM AND DANGER LABELS

Trim and DANGER labels shall be stitched with the specified Nomex® thread.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

14.5 SINGLE LAYER HEMMING AND FINISHING

Single layer hemming and finishing shall be stitched with the specified Nomex® thread.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

15.0 POCKETS

All pockets and flaps shall be reinforced at the top with bar tack stitching.

All pockets shall be reinforced with an extra layer of NFPA-certified out shell, moisture barrier, or other NFPA-certified reinforcement material for extra durability. The exact location of the reinforcements shall be identified in the custom option selection(s).

All pockets shall have a means to drain water and shall have a means of closure.

All pocket closures shall be made either with hook and loop fastener tape a minimum of 1.5 inches (3.8 cm) wide, with a flap, or with snaps. The specific placement of the closure system shall be declared at the time of order.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

16.0 TAILORED GRADING OF GARMENT LININGS

Garment linings, including but not limited to thermal linings and moisture barriers, each such lining layer shall be tailor-graded to fit within the overall garment composite of all layers without causing bunching or binding when the garment is worn.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

17.0 POINTS OF STRESS

All points of stress shall be reinforced with sturdy bar tacks. Rivets are not acceptable because of their potential for rust and electrical or heat conduction.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

18.0 HIGH TEMPERATURE, NFPA 1971-CERTIFIED MATERIAL REINFORCEMENTS

Reinforcements shall be provided at cuffs and pockets and shall meet the requirements of NFPA 1971.

For cuff reinforcements only: Manufacturer shall provide cuff reinforcements made of outer shell material at no additional cost. If the purchaser specifies reinforcements made of materials other than outer shell material, the manufacturer shall identify the additional cost for the specified material.

Does Your Bid Comply? Yes___ No___

19.0 ASSET TRACKING SERVICES

Upon request, the manufacturer shall be capable of providing a Windows-compatible Software program for the tracking of care, cleaning and maintenance of the department's PPE.

This tracking program shall meet or exceed all record-keeping requirements of standard NFPA 1851, *Standard on Selection, Care, Maintenance of Structural Fire-Fighting Protective Ensembles*, 2001 Edition.

Labels on each separable part of the garment shall include a standard style interleaved 2 of 5 barcode containing (at a minimum) an individual serial number for asset tracking purposes.

The manufacturer must be capable of providing onsite or internet training to department personnel who are involved with the daily use of this tracking program, and if there is an additional cost involved for this service, the Bidder must disclose those costs at the time of bid.

Does Your Bid Comply With All Aspects Of This Section? Yes___ No___

20.0 REPAIRS AND ALTERATION SUPPORT

The manufacturer shall furnish, free of charge, reasonable quantities of NFPA 1971-certified thread, materials and other supplies to allow the department to manage its own ongoing internal maintenance efforts. Also, the manufacturer may provide on call at no charge, during normal business hours, a liaison for the repair department to assist the Fire Department on a telephone consultation basis, on all maintenance or repair questions that might arise. Additionally, the manufacturer shall agree to 48 hour turn around on all repairs that must be performed at the manufacturer's plant, rather than in the department, over the life of the contract.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

21.0 HIGH TEMPERATURE THERMAL INSULATING MATERIALS REQUIREMENT

Because thermally stable materials are essential to maximizing protective performance in all firefighters' PPE, and because NFPA only states "minimum" performance requirements, all thermal liner or thermal enhancing materials used in the garments shall also meet the following criteria after the 500 degree F oven test:

- 1) Material shall remain intact and flexible
- 2) No portion of the material shall crack, crumble or flake

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

22.0 BREATHABILITY REQUIREMENT

Excluding where required by NFPA standard, necessary for functionality, or specifically called out in the custom option sections, all materials used in the construction of the garments shall be breathable and all moisture barrier material must be as specified in the following materials section, or must be Crosstech.

The breathability requirement includes but is not limited to: collar, chinstrap, storm shield, fly, waterwells, front coat facings, labels, and reinforcement cushioning where applicable.

Areas where non-breathability is allowed (absent Custom Option specifications): trim, hook and loop fastening, hardware or hardware backing, and external pocketing.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

23.0 CONDUCTIVE AND COMPRESSIVE HEAT RESISTANCE (CCHR)

Using breathable materials as outlined in the section titled Breathable Materials, there shall be a minimum area of 4" x 4" (10.2 cm x 10.2 cm) at the shoulders and elbows that provide a minimum of 25 CCHR at 2 psi, and a minimum of 6" x 6" (15.2 cm x 15.2 cm) area at the

knees that provide 25 CCHR at 8 psi. All three compression areas shall be constructed of high temperature fiber based materials and sewn to the thermal liner on the inside of the liner toward the moisture barrier.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

24.0 SEAM PROTECTION AT CUFFS

At the coat and pant cuff Major A seams, the reflective trim shall stop just before the folding of the full field seam and for additional abrasion protection be covered by a sewn on, 0.75” (1.91 cm) wide black Nomex webbing material laid on top of the Major A seam and covering each end of the trim.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

25.0 APPLICABLE DOCUMENTS

The following standards in their active versions on the date of invitation for bid shall form a part of this specification to the extent specified herein.

<u>STANDARD</u>	<u>TITLE</u>
ASTM D 6193-97	Standard Practice for Stitches and Seams
NFPA 1500, 2002 Edition	Standard on Fire Department Occupational Safety and Health Program
NFPA 1851, 2001 Edition	Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles
NFPA 1971, 2007 Edition	Standard on Protective Ensemble for Structural Fire Fighting

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

COAT

To avoid liability and interference problems, coats and pants shall be procured from the same manufacturer.

26.0 DESIGN CONCEPT (STYLING)

The coat shall be approximately 6 inches (15.2 cm) longer at the rear hem than at the front and provide continuous and unbroken moisture barrier and thermal liner protection from the collar seam to the hem at the bottom of the coat tail. Each coat, length shall be determined by each individual's torso length and the coat-to-pant interface as defined by NFPA 1500. Coat design must interface properly with standard waist high bunker pants.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

27.0 PATTERNING CONCEPT

Garments shall feature a tailored three-piece body, one-piece back construction throughout the outer shell, moisture barrier and thermal liner layers. One-piece garments (either all layers or some layers) will not be considered acceptable since they cannot be tailored to hard-to-fit personnel. Similarly, garments with seams in mid-back are not considered acceptable because of backbone irritation that can occur with SCUBA use. To facilitate individual tailoring needs, the major A & B seams joining the one-piece back to the right and the left front body panels (outer shell and all interior layers) shall be located at the most lateral position when the coat is laid flat for inspection.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

28.0 PATTERNING REQUIREMENTS

To assure maximum freedom of movement and reduce kinetic restriction with minimum garment weight and bulk, coat patterning shall include the following features:

- Degree of slope on shoulders shall be no more than 20%
- Hydraulic Butterfly sleeve patterning with 85-degree Lift Up Release Action shall be provided to minimize coat hem rise.
- Sleeve attachment shall minimize shoulder lift and allow a full 360 degrees freedom of movement.
- Coat hem rise with overhead reach of both arms not to exceed 4-inch (10.2 cm) maximal extension on properly fitted garments.
- Shell-and-liner retraction at the cuff shall not exceed 1 inch (2.5 cm) when both arms are raised overhead. This helps eliminate wrist exposure.
- 10-inch (25.4 cm) chest over-sizing shall be provided.
- Coat sweep measurements must be consistent with the chest over-size at the hem.

- Reach when measured from cuff to cuff, with coat lying flat, and standard length sleeves extended to each side, shall be provided as detailed below.

<u>Chest Size</u>	<u>Standard Reach</u>
40 in (101.6 cm)	66 in (167.6 cm)
42 in (106.7 cm)	67 in (170.2 cm)
44 in (111.8 cm)	68 in (172.7 cm)
46 in (116.8 cm)	68 in (172.7 cm)

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

29.0 DRAG RESCUE DEVICE (DRD)

Manufacturer shall supply an NFPA required and certified Drag Rescue Device with each coat. The device shall be designed to fit each individual chest size.

Each strap will be properly labeled with DANGER labels that include what size the Rescue Strap is designed to fit along with instructions for care and installation/removal of the Rescue Strap.

Rescue Strap shall be designed in a fashion that it functionally provides a dynamic and articulated action and to eliminate excess strapping material hanging down the back when installed between the garment's liner and outer shell.

The device shall be constructed using two components: a 1.75" (4.45 cm) Kevlar webbing grab handle; and a free-floating loop of Kevlar rope to go around each of the wearer's arms/shoulder. The grab handle shall be positioned at the rear of the upper torso and through the grab handle.

The grab loop shall extend upward and pass through a reinforced slot in the coat outer shell just below the center rear of the collar seam where it will exit the outer shell where it will be covered by an outer shell tunnel. The protruding grab loop shall then fold back down over the top of the tunnel and be stowed by Velcro with the pile sewn for the width of the tunnel and the hook sewn on the grab loop. There shall then be an outer shell flap sewn below the collar that will fold down over the stored grab loop and held in place with Velcro to reduce the chances of snagging to grab loop by accident.

To facilitate comfort and safety the Grab Handle shall be constructed of soft and pliable Kevlar webbing to meet the follow specifications:

Description	100% Kevlar Double Plain Weave – Black with Natural Kevlar Center
Warp Yarn	1500/1000/2.75z Kevlar T-970F Black 1500/1000/2.75z Kevlar T-961 Natural
Weft Yarn	1500/1000.2.75z Kevlar T-970F Black
Catch cord	Tex size T-50 3-Ply/9.5z Bonded Kevlar Sewing Thread Black
Width	1.75" (4.45 cm)
Thickness	0.064" ± 0.010" (1.63 cm ± .0254 cm)
Tensile	5,000 lb. minimum (22.24 kN)

To facilitate comfort and safety the free floating loop shall be constructed of soft and pliable Kevlar rope meeting the following specifications.

Description	100% Kevlar Tubular Plain Weave – Natural
Warp Yarn	1500/1000/2.75z Kevlar T-961 Natural
Weft Yarn	1500/1000/2.75z Kevlar T-961 Natural
Catch cord	Tex size T-35 Crispin Kevlar thread
Width	.038" (.097 cm)
Thickness	0.144" ± 0.005" (.366 cm ± .013 cm)
Tensile	3,500 lb minimum (15.57kN)

Rescue Strap shall be sewn with Kevlar thread with a minimum of Tex size T-210

Does Your Bid Comply With All Aspects Of This Section? Yes___ No___

30.0 LINER ATTACHMENT

The completed liner-moisture barrier assembly shall attach by means of four (4) evenly spaced love snaps to each outer shell front facing to reduce weight, bulk and stiffness. To provide continuous moisture and pathogen protection at the front, the liner shall be positioned so it is sandwiched between the coat front facing and a breathable pathogen shield. The use of zippers or hook and loop fasteners in this area is not allowed due to their added weight, bulk and stiffness.

Liner sleeves shall be attached at the outer shell cuff by means of snaps on two (2) sets of the outer shell fabric tabbing strips per cuff. These snaps shall be isolated by the tabbing material so that they will not abrade against the outer shell.

To provide continuous moisture protection and pathogen protection at the neck, the liner shall be positioned so that it is sandwiched between an outer-facing pathogen shield and an inside facing of the specified outer shell material, both folded over and sewn at the neck seam.

The liner system design shall not allow products of combustion or other contaminants to move into the liner interior between the moisture barrier and thermal liner. For instance, separately hemmed and bar tacked liner and moisture barrier with open edge designs would not be acceptable.

Attachment shall be by means of four (4) glove straps that penetrate only the layer of the attachment facing towards the liner, so that metal contact at a wearer's neckline is completely eliminated.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

31.0 COAT CERTIFICATION LABEL ON LINER

The coat certification label on the liner shall be integrally printed on FR Cotton Indura® and lockstitched to the inside right body panel in a fashion to provide an inside liner pocket.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

32.0 COAT CERTIFICATION LABEL ON SHELL

The coat certification label on the shell shall be integrally printed on FR Cotton Indura® and lockstitched to the shell along one side of the label at the back of the coat.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

33.0 COLLAR

The collar shall be of layered construction, consisting of a layer of waterproof moisture barrier and a layer of NFPA 1971-certified insulating material, sandwiched between two (2) layers of specified outer shell material. NFPA compliant collars shall be at least 3 inches (7.6 cm) high while CGSB compliant collars shall be at least 4 inches (10.2 cm) high. The design shall incorporate in its patterning a natural contour that will allow proper fit and performance in the standing (upright) or stowed position.

There shall be no vertical or horizontal seams or stitching in the body of the collar. Left outside of the collar shall have a sewn piece of 2-inch x 2-inch (5.0cm x 5.0 cm) hook and loop fastener hook tape for chinstrap-to-collar closure. Each collar shall be graded to individual coat sizes.

34.0 CHIN STRAP

The chinstrap shall be of layered construction identical to that of the collar configuration described in the previous paragraphs. Chinstrap shall be of a crescent shaped design with minimum dimensions of, + or – 0.50 inch (1.2 cm): 9 inches (22.5 cm) long across the top corners, 10.5 inches (26 cm) long across the bottom corners, and 3.5 inches (8.75 cm) in vertical height, measured at the center. The leading underside edge of the chinstrap shall have a 1.5 inch-wide (3.8 cm-wide) horizontal strip of hook and loop fastener pile to ensure closure and to ensure passage of the Whole Garment Liquid Penetration Test.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

35.0 HANG-UP LOOP

An 80-pound (36.3 kg) tear strength hang-up loop shall be provided at the interior collar seam. The loop shall be constructed of triple layers of the specified outer shell material, lockstitched to the coat. Webbing is not acceptable.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

36.0 SLEEVES

To prevent stovepiping, sleeves shall be individually graded by coat size and sleeve length. For maximum freedom, sleeve design shall feature extra full cut one-piece outer shell set-in sleeves with built-in bellows. To reduce the chances of possible top seam failure in that high thermal exposure area, the sleeve Major A seam shall follow the underside of the arm and shall not cross over the outside of the elbow joint. Sleeve seam and sleeve attachment to coat body in all layers shall be 100% double fold and double stitched for maximum strength (that is, Major A seam requirement, as previously defined in this specification).

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

37.0 INNER WRISTLET & WATERWELL

Every coat shall feature 4.5 inch (11.4 cm) long, double-layer 100% Nomex® knit inner wristlets protected by a flame-resistant and moisture-resistant waterwell. The inner wristlet shall be sewn to the thermal liner sleeve end (not the outer shell). A specified moisture barrier waterwell with an elastic gather shall be sewn to the moisture barrier sleeve end with all seams sealed to allow maximum channeling of water away from inside the moisture barrier/thermal liner sleeve end. This waterwell must pass the NFPA 1971 Whole Garment Liquid Penetration Test. The thermal liner/wristlet shall be bar tacked and seam sealed at the junction of the moisture barrier sleeve to the waterwell seam to prevent liner pullout. This inner waterwell assembly shall be interface capable with the appropriate glove to provide wrist protection during the NFPA 1971 Whole Garment Liquid Penetration Test.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

38.0 EXTERNAL WRISTLET

Every coat shall feature a 2.5 inch (6.4 cm) long 100% Nomex® knit outer wristlet, which shall be mounted to the end of each outer shell sleeve to prevent liquid and debris movement up the sleeve between the outer shell and the moisture barrier/thermal liner assembly.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

39.0 FRONT CLOSURE PROTECTIVE OVERLAP

Two-inch-wide (5.1 cm-wide) panels of breathable moisture/pathogen barrier and specified thermal liner materials shall be provided at coat front closure facings to preclude any type of break in the protective envelope. The entire circumference of a closed coat shell shall consist of a specified shell, moisture barrier and thermal liner materials.

The inside trailing edge of each 2-inch-wide (5.1 cm-wide) inner panel shall have the breathable moisture/pathogen material wrapped around the edge by the 0.5 inch (1.3 cm) to

create an anti-wick guard to prevent soakthrough during the required NFPA 1971 Whole Garment Liquid Penetration Test. An additional layer of 6-inch-wide (15.2-cm-wide) breathable moisture/pathogen barrier material shall be sewn between the 2-inch-wide (5.1-cm-wide) panels and outer shell coat body for the entire length of coat front in a fashion to prevent liquid entry during the NFPA 1971 Whole Garment Penetration Test.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

40.0 COMPOSITE MATERIALS

The specifier has determined the ONLY acceptable combination of materials. Any substitution of materials shall be grounds for immediate disqualification of bid without further consideration.

40.1 OUTER SHELL

70% PBI/Kevlar Spun Yarns, 30% 600 Denier Kevlar Filament Yarns, 7 oz Comfort Twill -Gold

40.2 THERMAL LINING

7.6 oz. – 50% Kevlar Filament, 50% Nomex/FR Rayon Spun Yard; Aramind Needlepunch

40.3 MOISTURE BARRIER

Crosstech Type 2F

Does Your Bid Comply With All Aspects of This Section?

For Outer Shell: Yes___ No___

For Thermal Lining: Yes___ No___

For Moisture Barrier: Yes___ No___

41.0 COAT CUSTOM OPTIONS TO BE PROVIDED

Instructions in this custom options section that contradict earlier specifications or statements supersede those earlier specifications or statements as long as the required certifications are not compromised.

Inspection Port Liner

Liner Detachable

SET Thermal Enhancement

Liner Label Pocket

Take Up Straps 2 Postman

Articulating Rapid Rescue Strap in new coat

Trim - New York 2 w/SET – Lime 2-Tone Scotchlite

Trim - Double Stitched

Hem Patch – PBI Max – Gold

Avg. 3 – 2” Numbers – TO BE SPECIFIED

3 – 2” sewn letters – lime Scotchlite

Number Patch – SET – PBI Max Gold

- left sleeve
 - ### Avg. 3 – 2” Numbers – TO BE SPECIFIED
- 3 – 2” sewn letters – lime Scotchlite – left sleeve
- Heavy duty zipper and full Velcro closure– PBI Max – Gold
- LTO – Comfort Chinstrap – PBI Max – Gold
- Black Knit Material on Chinstrap
- **NO FOLD CHINSTRAP****
- Coat Cuffs – Kevlar/Nomex EWR Gold
- Half Hi Bellows Pockets – PBI Max – Gold
- 6” x 9” x 1.5”
- Bar Tack All 4 Corners of Bellows Pockets
- Flap .5” Wider than Bellows Pockets, Both Sides
- Lined with Kevlar

- Mic Tab – PBI Max – Gold – left chest – 1” x 3”
 - Place 3” Above Radio Pocket & Place As Close to Shield As Possible
- Mic Tab – PBI – Max – Gold
 - on shield (stormflap)
 - 1” x 3”
 - Centered 3” below top of storm shield
 - Place in 1:00 position
- Large Hook on Patch-Kevlar/Nomex/EWR Gold
 - right side
 - Place above half hi bellows pocket
- Radio Pocket PBI – Max – Gold
 - left chest
 - 8 x 3.5 x 2
 - Place as close to shield as possible
- Snap on Radio Pocket Flap – w/Velcro – left chest
- Lined with Crosstech Black – left chest
- Notch Flap – Left – left chest
- SL-90 Flashlight Clip – PBI Max Gold – right chest
 - Place strap directly above chest trim – Bottom of tab portion to be 1.5” above top of strap
- Placed as close to shield as possible
- Sub Wristlets – Long with tabs – Nomex black

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

PANTS

Coats and Pants shall be procured from the same manufacturer.

42.0 DESIGN CONCEPT (STYLING)

The pant shall be of a traditional waist-high-only design to facilitate full torso ventilation of front rear and sides of trunk for maximum body cooling effect to help minimize firefighter heat stress. For this reason, other than waist-high pants shall not be considered acceptable or “equal,” since additional trunk wrapping traps heat and moisture, increasing heat stress buildup while also creating mechanical resistance when covering the natural torso flexion point of the waist.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

43.0 PATTERNING CONCEPT

Garments shall feature a tailored four-piece outer shell with a two-piece moisture barrier and lining. A pant with a four-piece moisture barrier and thermal liner shall be provided, at no additional charge, when and if an individual’s tailoring needs require it.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

44.0 PATTERNING REQUIREMENTS

To assure maximum freedom of movement and reduced kinetic resistance with minimum garment weight and bulk, the pants patterning shall:

- incorporate hydraulic, swivel action leg-to-torso interfaces.
- incorporate an oversized diamond-shaped crotch insert, grading according to size, for maximum action and stride, optimum stepping reach and no “in-crotch” seaming.
- meet individual tailoring needs, and offer superior functionality. Diamond shall extend from just above the left knee to just above the right knee, and be centered equally from front to rear. Width of diamond at the top of crotch shall be approximately 4 inches (10.2 cm), graded to size.
- ensure that pants rest in normal body line balance of 22 inches (55.9 cm) center distance at the cuff.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

45.0 REINFORCED CUSHIONED KNEE

The cushioning for the knee reinforcement if required, and the thermal pad sew to the internal side of the thermal liner assembly, shall provide a minimum of 25 CCHR and be comprised of breathable, fiber based materials.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

46.0 SUSPENDER BUTTONS

Eight (8) heavy duty, rust resistant suspender buttons shall be positioned around the waist. Suspender buttons shall be mounted through waistband of triple layer outer shell material that is internally reinforced with an additional band of coated needlepunch aramid.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

47.0 LINER ATTACHMENT

The moisture barrier and the thermal liner assembly shall be attached to the outer shell at the cuff by means of two (2) Nomex® webbing snap assemblies per leg, and to the waistband, at the waist, with seven (7) evenly-spaced glove snaps.

The liner system design shall not allow products of combustion or other contaminants to move into the liner between the moisture barrier and thermal liner. For instance, separately hemmed and bar tacked liner and moisture barrier with open edge designs would not be acceptable.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

48.0 PANT CERTIFICATION LABEL ON LINER

The pant certification label on the inner liner shall be integrally printed on FR Cotton Indura and lockstitched to the inner left hip area.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

49.0 PANT CERTIFICATION LABEL ON SHELL

The pant certification label on the shell shall be integrally printed on FR Cotton Indura and lockstitched at the top rear of the waist, at the inside.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

50.0 FLY FRONT

The outer shell fly shall be lockstitched to the left side of the front opening and shall be in proportion to waist size and crotch rise in both length and width. Fly inner lining shall extend at least 2 inches (5.1 cm) to the left of the outer shell fly attachment seam and shall be constructed of certified breathable moisture barrier and thermal liner. The right front pant opening shall have an internal facing extending at least 2 inches (5.1 cm) to the right and constructed of specified fabric. In combination with the liner, the system shall offer 360-degree protection without gaps during movement of the outer shell moisture barrier and thermal liner. Closure shall be by means of a minimum 1.5" wide (3.8 cm-wide) hook and loop fastener/Zipper Fly - No Hook – 1 snap, and all construction techniques used shall provide liquid penetration protection under the NFPA 1971 Whole Garment Liquid Penetration Test. The fly shall be graded to the waist size of the garments and crotch rise.

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

51.0 COMPOSITE MATERIALS

The specifier has determined the ONLY acceptable combination of materials. Any substitution of materials shall be grounds for immediate disqualification of bid without further consideration.

51.1 OUTER SHELL

70% PBI/Kevlar Spun Yarns, 30% 600 Denier Kevlar Filament Yarns, 7 oz Comfort Twill - Gold

51.2 THERMAL LINING

7.6 oz. – 50% Kevlar Filament, 50% Nomex/FR Rayon Spun Yarn; Aramind Needlepunch

51.3 MOISTURE BARRIER

Crosstech Type 2F

Does Your Bid Comply With All Aspects of This Section?

For Outer Shell:	Yes___ No___
For Thermal Lining:	Yes___ No___
For Moisture Barrier:	Yes___ No___

52.0 PANT CUSTOM OPTIONS TO BE PROVIDED

Instructions in this custom options section that contradict earlier specifications or statements supersede those earlier specifications or statements as long as the required certifications are not compromised.

Inspection Port Liner
 Liner Detachable
 Trim – 3” Cuff – Lime 2-Tone Scotchlite
 Trim - Double Stitched
 Number Patch – SET – PBI Max Gold
 - On Right Pocket - Pants
 Avg. 3 – 2” Numbers – TO BE SPECIFIED
 Place left edge of patch as close to the left edge of the flap as close to possible
 3 – 2” sewn letters – lime Scotchlite – On Right Pocket – Pants
 Narrow 1.5” Velcro/Zipper Fly – No Hook – 1 Snap
 Full Access Opening
 Angled Cuffs – Pants – Kevlar/Nomex/EWR Gold
 Pants Cuffs – Kevlar/Nomex/EWR Gold
 BiFlex Heat Channel Knees – Kevlar/Nomex/EWR Gold
 Horizontal Strips in BiFlex knee to be Arashield Gold
 Bellows Pockets – Pants – PBI Max Gold
 - 9 x 9 x 1.5 “
 Lined with Kevlar
 Snap Style Suspender Attachment
 R/L Life Grip Ladder/ Escape Belt Pant Adaptation w/Belt
 Dyna-Fit Suspenders with Snap Attach and Quick Adjust Installed
 DF w/2 tone Lime Scotchlite trim

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

53.0 WHITE / NATURAL COAT

Same specifications as coat specs above with exception:
 - The material being that of Natural Nomex

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

54.0 WHITE / NATURAL PANT

Same specifications as pant specs above with exceptions:
 - The material being that of Natural Nomex
 - The knees are to be Cushioned/Natural Nomex

Does Your Bid Comply With All Aspects of This Section? Yes___ No___

55.0 SUSPENDERS (INDIVIDUAL)

Dyna-Fit Suspenders with Snap Attach and Quick Adjust Installed,
 w/2 tone Lime Scotchlite trim

EXCEPTIONS TO SPECIFICATIONS

Any and all exceptions to the above specifications must be clearly stated for each heading. Use additional pages for exceptions, if necessary.

ADDITIONAL REQUIREMENTS TO BIDDERS

Successful bidder must have a full time repair and warranty sewing dept. for all necessary repairs and/or alterations. Bidder must provide pickup and delivery of above protective clothing at no charge to the Warwick Fire Department, 111 Veterans Memorial Drive, Warwick, RI 02886, with one week turn-around time for said repairs. All measuring will be done with Fit Gear (NO EXCEPTIONS) at the station of the individual(s) being fitted.

Delivery time from factory shall be no longer than 40 calendar days. (NO EXCEPTIONS).

EXCEPTIONS

FIREFIGHTING HOODS

DESIGN:

Two-piece construction with shoulder inserts or comparable. The design of the hood must properly fit an “AV3000 Mask”.

FABRIC:

Both outer shell and lining are a blend of Carbon/ High Strength material. The hood must meet the new standards for laundry shrinkage. The construction of the hood must be of a breathable material.

THREAD:

The seams will be sewn with 100% Nomex thread.

TYPE OF STITCH AND SEAM:

All stitching will conform to the Federal Standards 751 Specifications. All major seams will be flat seamed. The bottom of the hood should be bound with a cover-stitch.

CONSTRUCTION:

The hood will be composed of two layers throughout. For a contoured fit, the hood should be seamed from the top of the face opening to the bottom back of the hood. Face opening will be circular in shape and finished with an extra heavy one-half (1/2) inch wide elastic around the perimeter. The elastic is then folded back one-half (1/2) inch and cover-stitched. Face opening will maintain its original shape after repeated launderings. The bottom edge of the hood will be finished with binding.

SIZE:

One size hood will fit all without any modifications. Hood length must exceed twenty (20) inches.

LABELING:

Each hood will be clearly labeled to identify material contents and NFPA acceptance, UL classifications and manufactured date.

STANDARDS FOR HOOD:

Thermal Protection Performance (TPP) must be equal or exceed the NFPA standards. Hood will be UL classified to meet or exceed NFPA 1971 standard on Protective Ensemble for Structural Fire Fighting 2007 Edition. Must comply with NFPA 70E (Electrical Safety in the Workplace).

Hood Bid Requirements

Adherence to the following minimum specifications or equivalent is mandatory. Any substitutions from the specifications outlined are acceptable and must include all technical documentations. All substitute models must be of an equal or better value. All substitute models must list the make and item numbers.

Prices to be held firm two years from date of award. Term of contract may be extended for one additional term upon mutual agreement unless otherwise stated.

The City of Warwick reserves the right to increase or decrease quantities in the best interest of the city.

All prices are to include shipping and handling to the Warwick Fire Department, 111 Veterans Memorial Drive, Warwick, Rhode Island.

All orders will be placed on an as needed basis throughout the contract period.

Pricing Page

Description	Bid Price Each
<u>Firefighting Coats & Pants</u>	
Make	
Model	
Warranty	
Coat (per)	\$
Pants (per)	\$
Replacement Suspenders (to be same as what would normally be included with pants purchase) Item #55.0 in spec.	\$
<u>Firefighting Hoods</u>	
Make	
Model	
Warranty	
Cost Each	\$
Delivery in Calendar Days	

CITY OF WARWICK

BID AND CONTRACT FORM

TITLE OF SPECIFICATION: Bid2017-069 Protective Structural Firefighting Coats, Pants
& Fire-Retardant Carbon-Based Hoods

I. BID:

WHEREAS, the CITY OF WARWICK has duly asked for bids for performance of services and/or supply of goods in accordance with the above-indicated specifications.

The person or entity below does irrevocably offer to perform the services and/or furnish the goods in accordance with the specifications, which are hereby incorporated by reference in exchange for the bid price below;

This offer shall remain open and irrevocable until the CITY OF WARWICK has accepted this bid or another bid on the specifications or abandoned the project.

The bidder agrees that acceptance below by the CITY OF WARWICK shall transform the bid into a contract. This bid and contract shall be secured by Bonds, if required by the specifications.

Pricing as Submitted